

BR3CG5350TAQ

Rev.A Jan.-2023



DATA SHEET

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-3	A
Peak collector current	I_{CM}	-5	A
Collector Base - Continuous	I_B	-0.5	A
Total power dissipation()	$P_{tot}()$	550	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-65 150	

/ Electrical Characteristics(Ta=25)

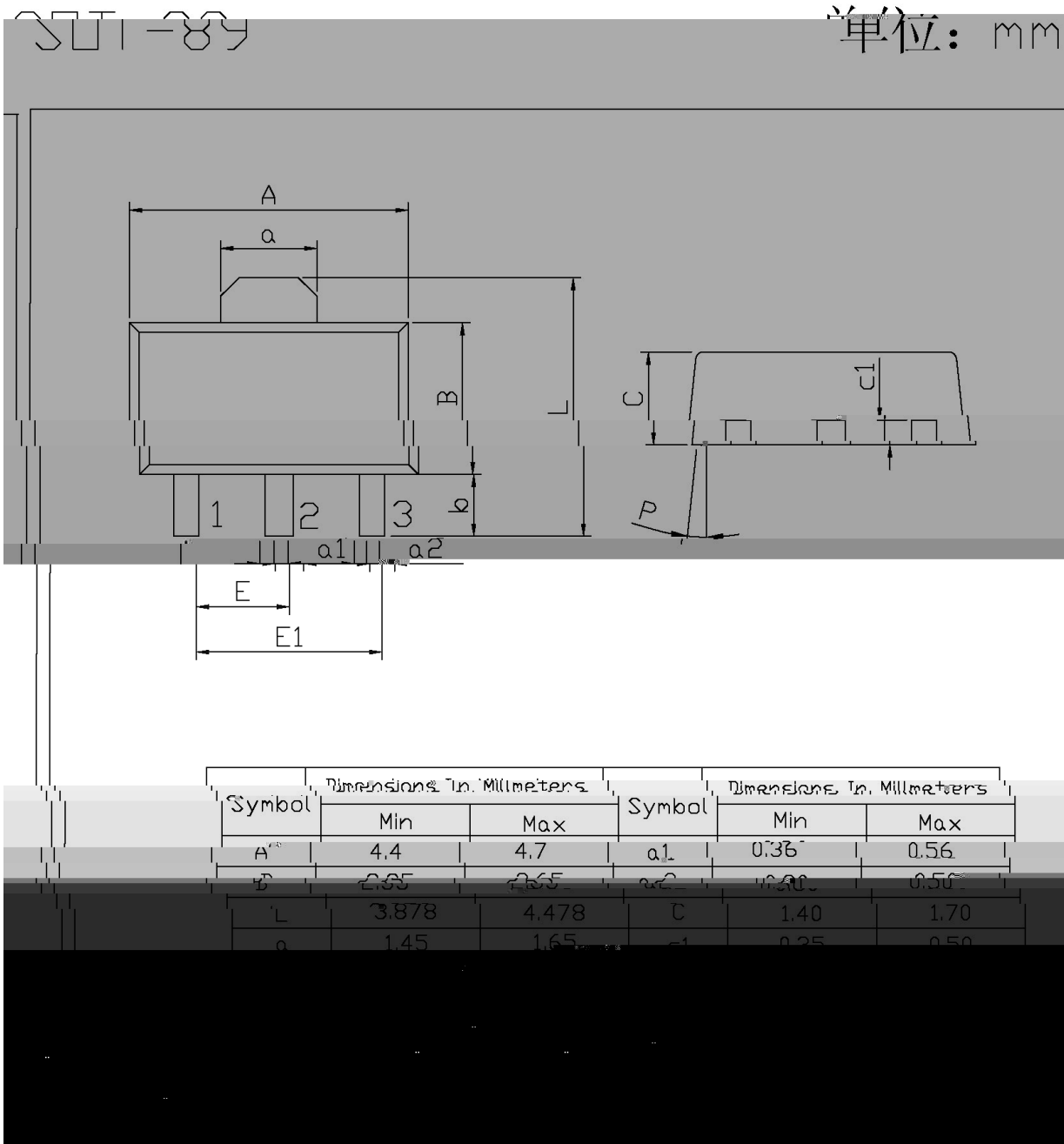
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-50V$ $I_E=0$			-100	nA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-50V$ $I_E=0$ $T_j=150$			-50	μA
Collector cut-off current	I_{CES}	$V_{CE}=-50V$ $V_{BE}=0$			-100	nA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-0.1A$	200			
	$h_{FE(2)}$	$V_{CE}=-2.0V$ $I_C=-0.5A$	200			
	$h_{FE(3)*}$	$V_{CE}=-2.0V$ $I_C=-1.0A$	200		450	
	$h_{FE(4)*}$	$V_{CE}=-2.0V$ $I_C=-2.0A$	130			
	$h_{FE(5)*}$	$V_{CE}=-2.0V$ $I_C=-3.0A$	80			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-0.5A$ $I_B=-50mA$			-90	mV
	$V_{CE(sat)(2)}$	$I_C=-2.0A$ $I_B=-100mA$			-320	mV
Equivalent on-resistance	$R_{CE(sat)*}$	$I_C=-2.0A$ $I_B=-200mA$		90	135	m Ω
Base to Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-2.0A$ $I_B=-100mA$			-1.1	V
	$V_{BE(sat)(2)*}$	$I_C=-3.0A$ $I_B=-300mA$			-1.2	V
Base-emitter turn-on voltage	$V_{BE(ON)}$	$V_{CE}=-2.0V$ $I_C=-1.0A$			-1.1	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ $I_C=100mA$ $f=100MHz$	100			MHz
Collector capacitance	C_C	$V_{CB}=-10V$ $I_E=0$ $f=1.0MHz$			35	pF

* $\leq 300\mu s, \delta \leq 2.0\%$ *pulse test: pulse width $\leq 300\mu s, \delta \leq 2.0\%$.

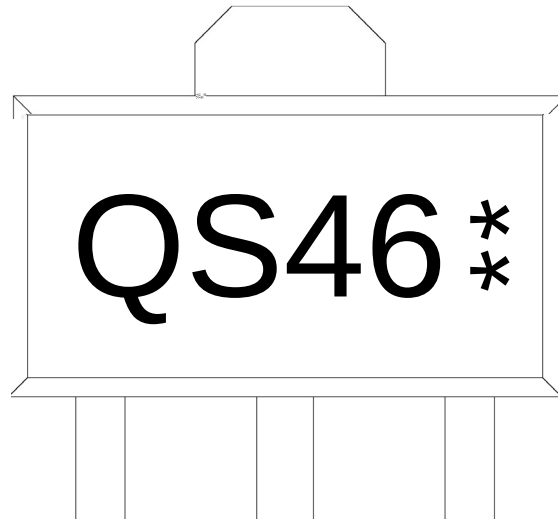
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



Q

S46

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Note:

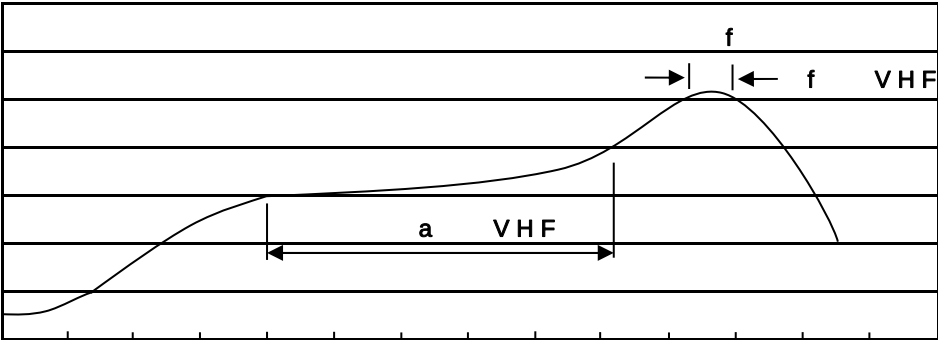
Q: Automobile halogen-free product Code

S46: Product Type

**: Lot No. Code, code change with Lot No

šWD t...•Žč (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

7HPSHUDWXXUH



7LPH VHF

ačy

Note:

- 1o• Ä ½ “† 150 ½200 - k ž • 60 ½120sec; 1.Preheating:150~200 - , Time:60~120sec.
2o• Q > “† 255 r5 - k ž • 4 Ò 5 r0.5sec; 2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.
3o•D N ò i Ò 0 ,† 2 ½10 - /sec. 3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“†y 260 r5 - ž •y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ~ E	Units ;>û !H					Dimension ;>û p . (unit /mm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box	Outer Boxç
SOT-89	1,000	7	7,000	6	42,000	7 s ×12	180×120×180	390×385×205

„Đ y f / Notices